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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
| 1642     | 7            |

DATE MAILED: 05/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

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|                              |                                      |                                    |
|------------------------------|--------------------------------------|------------------------------------|
| <b>Office Action Summary</b> | Application No.<br><b>09/503,089</b> | Applicant(s)<br><b>Patel et al</b> |
|                              | Examiner<br><b>Minh-Tam Davis</b>    | Art Unit<br><b>1642</b>            |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)  Responsive to communication(s) filed on Feb 11, 2000

2a)  This action is FINAL. 2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

4)  Claim(s) 1-25 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) \_\_\_\_\_ is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claims 1-25 are subject to restriction and/or election requirement.

**Application Papers**

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved.

12)  The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

15)  Notice of References Cited (PTO-892)

18)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16)  Notice of Draftsperson's Patent Drawing Review (PTO-948)

19)  Notice of Informal Patent Application (PTO-152)

17)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

20)  Other: \_\_\_\_\_

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**DETAILED ACTION*****Election/Restriction***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-2, drawn to a nucleic acid molecule encoding human TREK-1 of SEQ ID NO:1, classified in class 536, subclass 23.5. *1,3*

II. Claims 3-6, drawn to human TREK-1 potassium channel of SEQ ID NO:2, and its variants, classified in class 530, subclass 350. *2, 4*

III. Claims 7-8, drawn to a nucleic acid molecule encoding murine TREK-1 of SEQ ID NO:3, classified in class 536, subclass 23.5.

IV. Claims 9-12, drawn to murine TREK-1 potassium channel of SEQ ID NO:4, and its variants, classified in class 530, subclass 350.

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V. Claims 13-14, drawn to a method for identifying substance having anesthetic properties, comprising contacting said substance with the mammalian transport protein TASK, of SEQ ID NO:5, classified in class 435, subclass 7.2. *394 aa*

VI. Claims 13, 15, 16, drawn to a method for identifying substance having anesthetic properties, comprising contacting said substance with the mammalian transport protein TREK-1, of SEQ ID NO:2, classified in class 435, subclass 7.2. *411 aa*

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VII. Claims 13, 15, 16, drawn to a method for identifying substance having anesthetic properties, comprising contacting said substance with the mammalian transport protein TREK-1, of SEQ ID NO:4, classified in class 435, subclass 7.2.

VIII. Claims 13, 17, drawn to a method for identifying substance having anesthetic properties, comprising contacting said substance with a chimeric molecule comprising a portion of the human transport protein TREK-1, of SEQ ID NO:2, and a portion of the human transport protein TREK-1, of SEQ ID NO: 4, classified in class 435, subclass 7.2.

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IX. Claims 18, 19, drawn to a method for identifying substance having anesthetic properties, comprising contacting said substance with COS cells transfected with a nucleic acid molecule encoding the mammalian transport protein TREK-1, of SEQ ID NO:2, or its variants, classified in class 435, subclass 7.2.

X. Claims 18, 20, drawn to a method for identifying substance having anesthetic properties, comprising contacting said substance with COS cells transfected with a nucleic acid molecule encoding the mammalian transport protein TREK-1, of SEQ ID NO:2, or its variants, classified in class 435, subclass 7.2.

XI. Claims 18, 21, drawn to a method for identifying substance having anesthetic properties, comprising contacting said substance with COS cells transfected with a nucleic acid molecule encoding a chimeric molecule comprising a portion of the

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human transport protein TREK-1, of SEQ ID NO:2, and a portion of the murine transport protein TREK-1, of SEQ ID NO:4, classified in class 435, subclass 7.2.

XII. Claims 22-23, 25, drawn to a method for identifying substance having anesthetic properties, comprising contacting said substance with cells transfected with a nucleic acid molecule encoding TASK, or its variants, classified in class 435, subclass 7.2.

XIII. Claims 22, 24, 25, drawn to a method for identifying substance having anesthetic properties, comprising contacting said substance with cells transfected with a nucleic acid molecule encoding a chimeric molecule comprising a portion of TASK and a portion of human TREK-1, classified in class 435, subclass 7.2.

XIV. Claims 22, 24, 25, drawn to a method for identifying substance having anesthetic properties, comprising contacting said substance with cells transfected with a nucleic acid molecule encoding a chimeric molecule comprising a portion of TASK and a portion of murine TREK-1, classified in class 435, subclass 7.2.

In addition, upon the election of any of groups XII-XIV, further election of the following patentably distinct species of the claimed invention is required:

COS cells, HELA cells, Spodoptera cells, Xenopus oocytes, embryonic kidney cells, Chinese hamster cells, or fibroblasts.

2. The inventions are distinct, each from the other because of the following reasons:

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Inventions (I-IV) and (V-XIV) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (M.P.E.P. 806.05 (h)). In this instant case, a polypeptide could be used for several purposes, e.g. for biochemical assay, for making antibodies, and for making an affinity column to purify its antibodies; a DNA sequence could be used for the detection of similar DNA or RNA sequences, for making an expression vector, and for producing its encoded protein.

The products of groups I-IV are distinct from each other, because proteins are structurally distinct from nucleic acids, and human TREK protein or nucleic acid are structurally distinct from murine TREK protein or nucleic acid.

The methods of groups V-XIV are distinct from each other because they differ at least in objectives, method steps, reagents and/or dosages, and/or schedules used, response variables and criteria for success. The reagents human, murine TREK-1, TASK, or chimeric proteins are distinct because they are structurally distinct. Further, the reagents mammalian transport proteins or their chimeric molecules are structurally distinct from cells transfected with a nucleic acid molecule encoding said mammalian transport proteins or their chimeric molecules.

The species cells are distinct because they are functionally distinct.

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Because these inventions are distinct for the reason given above and have acquired a separate status in the art as shown by their different classification, and because the searches for the groups are not co-extensive, restriction for examination purposes as indicated is proper.

Applicants are required under 35 USC 121 to elect a single disclosed group for prosecution on the merits to which the claims shall be restricted. Applicant is further advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 USC 103 of the other invention.

Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

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application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. 1.48(b) and by the fee required under 37 C.F.R. 1.17(h).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Tam B. Davis whose telephone number is (703) 305-2008. The examiner can normally be reached on Monday-Friday from 9:30am to 3:30pm, except on Wednesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Caputa, can be reached on (703) 308-3995. The fax phone number for this Group is (703) 308-4227.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0916.

Minh-Tam B. Davis

May 03/2001

  
ANTHONY C. CAPUTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600